KAIZER EFFECT IN ACOUSTIC EMISSION EVENT FROM MECHANICAL TESTING

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BACHELOR OF ENGINEERING

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SESI PENGAJIAN: **2010/2011**

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KAIZER EFFECT IN ACOUSTIC EMISSION EVENT FROM MECHANICAL TESTING

MD NURAZLAN BIN MD GHAZALI

Report submitted in partial fulfilment of the requirements
for the award of the degree of
Bachelor of Mechanical Engineering

Faculty of Mechanical Engineering
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DECEMBER 2010

UNIVERSITI MALAYSIA PAHANG

FACULTY OF MECHANICAL ENGINEERING

I certify that the thesis entitled *"Kaizer Effect in Acoustic Emission Event from Mechanical Testing"* is written by *Md Nurazlan Bin Md Ghazali*. I have examined the final copy of this thesis and in our opinion; it is fully adequate in terms of scope and quality for the award of the degree of Mechanical Engineering. I herewith recommend that it be accepted in fulfilment of the requirements for the degree of Mechanical Engineering.

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LIST OF SYMBOLS

mm	Millimeter
Mps	Megapascal
M_T	Torsion moment
GPa	Gigapascal
%	Percent
kN	Kilonewton
Nm	Newton meter
kHz	Kilohertz
σ	Stress
P	Load
A_0	Cross sectional area
e	Strain
l	Instantaneous length
l_o	Original length
E	Modulus of elasticity
dB	Decibel
Vs	Energy
Nm	Torque

LIST OF ABBREVIATIONS

UMP	University of Malaysia Pahang
FKM	Fakulti Kejuruteraan Mekanikal
ASTM	American Society for Testing and Material
AISI	American Iron and Steel Institute
NDT	Nondestructive Testing
AE	Acoustic Emission
RMS	Root Mean Square